

# The Basics of Water Reuse Systems

What construction codes apply?

What should I look for during review and inspection?

# What does the Plumbing Code say?

- Prior editions of the Uniform Plumbing Code contained appendix chapters only
  - Gray water systems (untreated wastewater from bathing, wash basins, laundry) to serve underground irrigation in single family homes
  - Reclaimed water (wastewater treated by a public agency) to serve toilets and urinals in non-residential buildings
- Very limiting! Appendix chapters not adopted by Washington State

## What does the Plumbing Code say?

- 2006 UPC moved the previous appendix chapters to a new Chapter 16
  - The State of Washington adopted Part II only regarding reclaimed water systems
- Chapter 3 does allow local jurisdiction approval of alternate methods and materials
  - May be some reluctance to allow due to lack of guidance in the UPC

# What can we expect in the 2009 UPC?

- The UPC authors formed a Gray Water and Water Reuse task group to propose modifications to Chapter 16
  - Will include harvested rainwater for both residential and non-residential structures
  - Also will include provisions regarding manufactured gray water systems for recycling wastewater to serve toilets in residences
- State review to begin March 2009 and implementation statewide July 1, 2010

# The Basics – What should be considered by the jurisdiction?

- Tracking!
  - Water purveyors need to know where such systems are being installed.
  - May require “*premise isolation*”
    - This does not waive point-of-use backflow protection of the water distribution system of the building
  - This issue is being reviewed by the Washington State Department of Health Drinking Water Section

# The Basics – What should be considered by the jurisdiction?

- Review plans and diagrams
- Appropriate backflow protection
- Labeling of piping
  - Identify the contents of the nonpotable distribution system
  - Identify drainage system also to avoid improper connection during remodel or maintenance

# The Basics – What should be considered by the jurisdiction?

- Room identification
  - Maybe fixture identification where necessary
- Filtering methods
  - Manufacturer's maintenance instructions also
- Storage capacity and usage for gray water systems
  - Manufacturer's sizing criteria?
  - Engineering?

## The Basics – What should be considered by the jurisdiction?

- Make sure that the rainwater harvesting collection process does not adversely affect the roof drainage
  - Overflow requirements?
- GPM flow rates for the nonpotable distribution system adequate to serve the intended fixtures?



# QUESTIONS?

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